

In the claims:

1. (Twice Amended) An apparatus for determining a dimension of a feature of a semiconductor device, comprising:

at least one source of electrons;

a focusing device positioned proximate to the source of electrons to focus electrons emitted by the source and form an electron beam, the focusing device focusing the electron beam to have a first depth and a second depth of focus and form at least one representation of the semiconductor device corresponding to electrons focused at the first and second depths of focus and impinging on one or more surfaces of the semiconductor device;

a support aligned with the electron beam and having a support surface to engage the semiconductor device and support the semiconductor device, one of the electron beam and the support being movable relative to the other of the electron beam and the support in any of the x, y, or z planes.

5. (Amended) The apparatus of claim 4, further comprising a third detector operatively coupled to either the support or the source to detect movement of either the support or the source, the third detector generating a third signal corresponding to movement detected thereby.

12. (Twice Amended) An apparatus for determining a dimension of a feature of a semiconductor device, comprising:

a source of electrons;

a port surface having a first and second ports therethrough, the first port being positioned proximate to the source to form a first electron beam when electrons pass therethrough, the second port spaced apart from the first port to form a second electron beam when electrons pass therethrough;

a first focusing device positioned proximate to the first port and adjacent the first electron beam to focus the first electron beam on a first position surface;

a second focusing device positioned proximate to the second port and adjacent the second electron beam to focus the second electron beam on a second position surface that is different from the first position; and

a support aligned with the first and second ports and having a support surface to engage the semiconductor device and support the semiconductor device at the first and second positions, one of the support and the source being movable relative to the other of the support and the source in any of the x, y, or z planes.

20. (Twice Amended) An apparatus for determining a dimension of a semiconductor device feature, comprising:

first and second sources of electrons;

a first focusing device positioned proximate to the first source of electrons to focus a first electron beam emitted from the first source on a first position surface;

a second focusing device positioned proximate to the second source of electrons to focus a second electron beam emitted from the second source on a second positions surface; and

a support aligned with the first and second focusing devices and configured to engage the semiconductor device, one of the support and the sources of electrons being movable relative to the other of the support and the sources of electrons in any of the x, y, or z planes.

24. (Amended) The apparatus of claim 23, further comprising a third detector operatively coupled to either the support or one of the sources to detect movement of either the support or one of the sources, the third detector generating a third signal corresponding to movement detected thereby.